

**Revised Draft  
Environmental Impact Statement  
General Management Plan**

---

**Death Valley National Park  
Inyo and San Bernardino Counties, California  
Nye and Esmeralda Counties, Nevada**

This *Revised Draft Environmental Impact Statement / General Management Plan* presents the proposed management approach and two alternatives for the management of the 3.3 million-acre Death Valley National Park in the northeastern Mojave Desert in California and Nevada. Death Valley is the largest national park unit in the contiguous United States, created by Congress October 31, 1994 through the California Desert Protection Act (CDPA).

The first *1998 Draft Environmental Impact Statement / General Management Plan* was released for public review in September 1998. Eleven public meetings were conducted during the 127-day public review period. Based largely on public comments on that draft plan, the NPS made substantial revisions to the 1998 draft plan. Responses to written public comments on the 1998 draft plan are contained in a separate volume. This *General Management Plan* serves as the initial overall management strategy for the next 10–15 years under which more detailed activity or implementation plans would be prepared. As such, a general management plan is general rather than specific in nature, and focuses on purposes of the unit, its significant attributes, its mission in relation to the overall mission of the agency, what activities are appropriate within these constraints, and resource protection strategies. It also provides guidelines for visitor use and development of facilities for visitor enjoyment and administration of the unit.

The proposed action (alternative 1) seeks to extend the existing management strategies that are in place for the previous Death Valley National Monument, and the National Park Service mission and policies, to the management of the resources within the new lands added to the unit in 1994 by the California Desert Protection Act. It also strives to incorporate the designation of 95% of the Park as wilderness into the management approach. This alternative addresses the removal of feral burros and horses from the Park in order to achieve the NPS mission of managing the unit for native desert species. It also recognizes the need to work cooperatively with the Bureau of Land Management on adjacent land, where their mandate from Congress is to maintain viable herds of wild horses and burros. This alternative attempts to balance the preservation of resources mission with specific mandates from Congress at no more than the level occurring in 1994. In Death Valley, the California Desert Protection Act provides for the continuation of grazing on the new lands. This alternative addresses grazing as a component of the management. This plan identifies a number of activity level plans needed to address site specific issues, such as the Saline Valley Warm Springs management and a wilderness/backcountry management plan. This alternative seeks funding for acquisition of private property from willing sellers, and/or mineral interests where proposed uses conflict with the primary mission of preserving resources and providing for visitor enjoyment.

In addition to the proposal (alternative 1), two other alternatives in this document include the existing management (alternative 2) and an optional management approach (alternative 3). The existing management alternative describes the continuation of current management strategies. It is commonly referred to as the no action, or status quo alternative. Under this alternative, existing visitor and administrative support services and facilities would be maintained in their current locations. There would be no changes in existing number or location of structures. There would be no change in road maintenance, although some roads could be improved if funding becomes available. No changes in recreation use would occur. Land acquisition would focus on obtaining funds to acquire private property and mineral interests from willing sellers only where proposed uses conflict with the Park mission. The optional approach (alternative 3) provides for approval of the use of an airstrip at Saline Valley Warm Springs, designating campsites at the Warm Springs, specifies acquisition of private land or mineral interests only in sensitive habitats, and the phase out of the concession operation at Stovepipe Wells.

The 90-day opportunity for public comment starts with the Environmental Protection Agency filing a notice of availability in the Federal Register. Comments must be received by that time and should be sent to the following address:

Superintendent  
Death Valley National Park  
Death Valley, CA 92328



# CONTENTS

EXECUTIVE SUMMARY.....	1
<b>PURPOSE OF AND NEED FOR THE PLAN .....</b>	<b>27</b>
INTRODUCTION.....	29
BRIEF DESCRIPTION OF DEATH VALLEY NATIONAL PARK .....	29
MISSION .....	35
PURPOSE AND SIGNIFICANCE.....	35
Death Valley National Park Purpose .....	35
Death Valley National Park Significance .....	35
PRIMARY INTERPRETIVE THEMES .....	36
MANAGEMENT OBJECTIVES.....	36
Natural and Cultural Resources .....	36
Wilderness Values .....	37
Visitor Use .....	38
Interpretive Services .....	38
Recreational Activities.....	38
Commercial Services .....	38
Facilities and Services.....	39
Operations .....	39
Regional Planning and Cooperation .....	40
CARRYING CAPACITY.....	40
Desired Future Conditions.....	41
PLANNING ISSUES AND MANAGEMENT CONCERNS .....	45
NPS PLANNING PROCESS .....	45
ISSUE ANALYSIS AND DEVELOPMENT OF ALTERNATIVES .....	45
Issues Identified During Public Scoping.....	46
PLANNING CONSTRAINTS AND MANDATES.....	49
ACTIONS CONSIDERED FOR ALTERNATIVES BUT REJECTED .....	50
RELATIONSHIP TO OTHER PLANNING EFFORTS .....	51
West Mojave Plan .....	52
Northern and Eastern Colorado Desert Coordinated Management Plan .....	52
Las Vegas Resource Management Plan.....	53
Spring Mountains National Recreation Area Plan.....	53
Fort Irwin Proposed Expansion .....	53
Yucca Mountain Nuclear Waste Disposal at Nevada Test Site.....	54
Timbisha Shoshone Homeland .....	55
FUTURE PLANNING EFFORTS .....	55
<b>ALTERNATIVES, INCLUDING THE PROPOSED ACTION.....</b>	<b>57</b>
OVERVIEW OF ALTERNATIVES .....	59
ALTERNATIVE 1: PROPOSED ACTION.....	60
GENERAL DESCRIPTION .....	60
NATURAL RESOURCES .....	63
Physical Environment.....	63
Biological Environment.....	68
Fire Management.....	70
Research.....	71
Inventorying and Monitoring.....	71
CULTURAL RESOURCES .....	72
NATIVE AMERICAN INTERESTS .....	73
VISITOR USE, SERVICES, AND FACILITIES .....	74
Interpretation .....	74
Information/Orientation.....	75

Visitor Facilities .....	76
Recreational Activities .....	78
Visitor Use Fees .....	82
Commercial Services .....	82
GENERAL DEVELOPMENT CONCEPTS.....	83
Scotty' s Castle.....	83
Furnace Creek and Cow Creek .....	83
Grapevine.....	83
Stovepipe Wells .....	84
Wildrose.....	84
ROADS AND CIRCULATION .....	84
Roads .....	84
Trails .....	84
Signs.....	85
ADMINISTRATIVE OPERATIONS AND FACILITIES .....	85
Park Administration.....	85
Employee Housing.....	85
Solid Waste Disposal.....	86
LANDOWNERSHIP AND USE.....	86
Park Boundary and Authorized Acreage .....	86
Wilderness .....	86
Land Acquisition.....	88
Mineral Development Activities .....	88
Abandoned Mines.....	91
Sand and Gravel for Road Maintenance .....	91
Cattle Grazing .....	93
PLAN IMPLEMENTATION.....	96
Operational Costs .....	96
ALTERNATIVE 2: EXISTING MANAGEMENT (NO-ACTION).....	98
GENERAL DESCRIPTION .....	98
NATURAL RESOURCES .....	98
Physical Environment .....	98
Biological Environment .....	98
Fire Management .....	100
Research.....	100
Inventorying and Monitoring.....	100
CULTURAL RESOURCES .....	101
NATIVE AMERICAN INTERESTS .....	102
VISITOR USE, SERVICES, AND FACILITIES.....	102
Interpretation .....	102
Information/Orientation .....	102
Visitor Facilities .....	102
Recreational Activities.....	103
Visitor Use Fees.....	103
Commercial Services .....	104
GENERAL DEVELOPMENT CONCEPTS.....	104
ROADS AND CIRCULATION .....	104
Roads .....	104
Trails .....	105
Signs.....	105
ADMINISTRATIVE OPERATIONS AND FACILITIES .....	105
Park Administration/Employee Housing.....	105
Solid Waste Disposal.....	105
LANDOWNERSHIP AND USE.....	106
Park Boundary and Authorized Acreage .....	106
Wilderness .....	106
Land Acquisition.....	106
Mineral Development Activities .....	106
Abandoned Mines.....	107
Sand and Gravel Use for Road Maintenance.....	107

Cattle Grazing .....	107
PLAN IMPLEMENTATION.....	108
ALTERNATIVE 3: OPTIONAL MANAGEMENT APPROACH.....	110
GENERAL DESCRIPTION .....	110
VISITOR USE, SERVICES, AND FACILITIES.....	110
LANDOWNERSHIP AND USE.....	110
Land Acquisition.....	110
Mineral Development Activities .....	110
PLAN IMPLEMENTATION.....	111
Operational Costs .....	111
<b>AFFECTED ENVIRONMENT .....</b>	<b>113</b>
NATURAL RESOURCES.....	115
PHYSICAL RESOURCES .....	115
Air Quality and Visibility .....	115
Night Sky .....	116
Noise.....	116
Water.....	117
Paleontological Resources .....	119
Geologic Resources .....	120
BIOLOGICAL RESOURCES .....	121
Vegetation.....	121
Wildlife .....	121
Species and Habitats of Special Consideration.....	126
CULTURAL RESOURCES .....	132
ARCHEOLOGICAL RESOURCES .....	132
Pleistocene Era.....	132
Lake Mojave Period.....	132
Pinto Period .....	132
Gypsum Period .....	133
Saratoga Springs Period.....	133
Shoshonean Period.....	134
Historic Archeology.....	134
Status of Archeological Research .....	134
Landforms and Archeological Resources .....	135
National Register of Historic Places .....	135
HISTORIC RESOURCES.....	135
Exploration.....	136
Transportation.....	137
Mining.....	138
Ranching/Homesteading .....	140
Federal Administration .....	141
Civilian Conservation Corps (CCC).....	142
Recreational Development/Tourism.....	142
Timbisha Shoshone Village .....	143
Warm Springs – Saline Valley .....	143
Cultural Landscapes.....	144
National Register of Historic Places .....	145
Museum Collection.....	146
RELATIONSHIPS OF NATIVE AMERICAN CULTURES TO THE DEATH VALLEY AREA .....	147
VISITOR USE, SERVICES, AND FACILITIES.....	149
OUTDOOR RECREATION .....	149
VISITOR INFORMATION CENTERS.....	151
CAMPGROUNDS.....	152
BACKCOUNTRY CAMPING.....	153
COMMERCIAL SERVICES.....	153
SOCIOECONOMIC DESCRIPTION OF THE PLANNING AREA .....	155
LOCAL AND REGIONAL COMMUNITIES .....	155

PARK COMMUNITY.....	156
OTHER RESIDENTS .....	156
ROADS AND CIRCULATION.....	158
ROADS .....	158
TRAILS.....	158
ADMINISTRATIVE OPERATIONS AND FACILITIES.....	160
FACILITIES .....	160
Furnace Creek/Cow Creek.....	160
Scotty’ s Castle.....	160
Maintenance Facilities .....	160
HOUSING.....	160
LANDOWNERSHIP AND USE.....	162
STATE LANDS.....	162
WILDERNESS.....	162
MINING.....	162
PRIVATE LANDS.....	162
GRAZING.....	162
<b>ENVIRONMENTAL CONSEQUENCES .....</b>	<b>165</b>
ALTERNATIVE 1: PROPOSED ACTION.....	167
IMPACTS ON NATURAL ENVIRONMENT .....	167
IMPACTS ON CULTURAL RESOURCES.....	168
IMPACTS ON NATIVE AMERICAN INTERESTS.....	169
IMPACTS ON VISITOR USE AND FACILITIES.....	169
IMPACTS ON SOCIOECONOMIC ENVIRONMENTS.....	170
IMPACTS ON ADMINISTRATIVE OPERATIONS AND FACILITIES .....	170
IMPACTS ON LANDOWNERSHIP AND USE.....	171
CUMULATIVE IMPACTS.....	172
ALTERNATIVE 2: EXISTING MANAGEMENT.....	173
IMPACTS ON NATURAL ENVIRONMENT .....	173
IMPACTS ON CULTURAL RESOURCES.....	176
IMPACTS ON NATIVE AMERICAN INTERESTS.....	177
IMPACTS ON VISITOR USE AND FACILITIES .....	177
IMPACTS ON SOCIOECONOMIC ENVIRONMENTS.....	178
IMPACTS ON ADMINISTRATIVE OPERATIONS AND FACILITIES .....	178
IMPACTS ON LANDOWNERSHIP AND USE.....	178
CUMULATIVE IMPACTS.....	179
ALTERNATIVE 3: OPTIONAL MANAGEMENT .....	181
IMPACTS ON NATURAL ENVIRONMENT .....	181
IMPACTS ON CULTURAL RESOURCES.....	181
IMPACTS ON VISITOR USE AND FACILITIES .....	181
IMPACTS ON SOCIOECONOMIC ENVIRONMENTS.....	181
IMPACTS ON ADMINISTRATIVE OPERATIONS AND FACILITIES .....	181
IMPACTS ON LANDOWNERSHIP AND USE.....	181
CUMULATIVE IMPACTS.....	182
OTHER COMPLIANCE REQUIREMENTS .....	183
SUSTAINABLE AND LONG-TERM MANAGEMENT .....	185
<b>CONSULTATION AND COORDINATION.....</b>	<b>187</b>
PUBLIC INVOLVEMENT.....	189
PUBLIC SCOPING AND WORKSHOPS.....	189
COMMENTS ON THE 1998 DRAFT ENVIRONMENTAL IMPACT STATEMENT AND GENERAL MANAGEMENT PLAN.....	190
NEWSLETTERS AND HOMEPAGE.....	190

AGENCY CONSULTATION.....	191
NATIVE AMERICAN CONSULTATION.....	193
DEATH VALLEY NATIONAL PARK ADVISORY COMMISSION.....	193
INVITED COOPERATING AGENCIES.....	194
LIST OF AGENCIES AND ORGANIZATIONS TO WHOM COPIES OF THE DRAFT PLAN WERE SENT.....	195
<b>APPENDIXES .....</b>	<b>199</b>
APPENDIX A: CALIFORNIA DESERT PROTECTION ACT (PUBLIC LAW 103-433).....	201
APPENDIX B: LAND PROTECTION PLAN FOR DEATH VALLEY NATIONAL PARK.....	213
APPENDIX C: SPECIES OF SPECIAL CONSIDERATION.....	272
APPENDIX D: NATIONAL PARK SERVICE BIOSPHERE RESERVE PROGRAM.....	286
APPENDIX E: PRINCIPLES FOR WILDERNESS MANAGEMENT IN THE CALIFORNIA DESERT.....	294
APPENDIX F: TERM AND CONDITIONS OF A SPECIAL USE PERMIT FOR GRAZING LIVESTOCK.....	311
PREPARERS.....	317
ACRONYMS AND GLOSSARY.....	318
REFERENCES.....	327
INDEX.....	334

## FIGURES

1. Region .....	31
2. Place Names .....	33
3. Park Boundary and Preliminary Wilderness .....	61
4. Saline Valley Warm Springs .....	81
5. Landownership .....	89
6. Mining Claims and Inactive Mines .....	92
7. Cattle Grazing Permit (1994).....	95
B-1. Landownership .....	245
B-2. Mining Claims .....	247
B-3. Known Water Rights .....	248
B-4. Grazing Allotments .....	249

## TABLES

1: Summary of Proposed Action and Alternatives .....	3
2: Summary of Impacts .....	19
3: Proposed Action Cost Summary .....	96
4: Death Valley National Park Existing Staffing .....	109
5: 1994 Water Use at Death Valley National Park.....	118
6: BLM's Wild Horse and Burro Herd Management Areas for Herds Adjacent to Death Valley National Park .....	124
7: Burro and Wild Horse Population Data .....	124
8: Death Valley National Park Annual Visitation .....	149
9: Death Valley National Park Visitor Activities .....	150
10: Death Valley National Park Visitor Profile .....	151
11: Population of Communities that Surround The Northern and Eastern Mojave Planning Area, 1980–1996.....	156
12: Average Daily Traffic Levels (1995).....	158